KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT HAZARDOUS WASTE POST-CLOSURE PERMIT RESPONSIVENESS SUMMARY

MRP Properties Company, LLC
Arkansas City, Kansas
September 14, 2012
EPA I.D. Number KSD087418695

This responsiveness summary, in accordance with 40 CFR 124.17, is a response to all comments received on the draft Part I RCRA Post-Closure Permit for the MRP Properties Company, LLC (MRP) site in Arkansas City, Kansas. This document summarizes comments and subsequent changes to the permit.

An availability session and public hearing were held on August 29, 2012 as part of the public comment period which began on July 23, 2012. The public comment period ended on September 5, 2012. No comments were received from the public during the public hearing or the public comment period. Comments were received from the Permittee suggesting changes to the permit.

The comments received from MRP during the public comment period are presented in italics followed by KDHE's response. A highlight/strikeout version of the permit reflecting the changes resulting from the comments is attached.

1. Section III.B.2. LTU Closure Plan - this section describes six items (i to vi) to be performed by the permittee.

MRP proposes deleting item (i) providing an opportunity to stabilize the soil preventing erosion and enhancing runoff control during the CMS as discussed during the site visit on August 30, 2012.

MRP also proposes deleting item (vi) consistent with KDHE's Class 1a Permit Modification (12/23/2005) discontinuing the annual soil sampling until final closure, or as directed by KDHE. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE is receptive to the suggested deletion of Permit Condition III.B.2.i., but is unable to make this revision to the draft permit because the language in this subsection is also referenced in the Part B Permit Application. A change to the Part B Permit Application will require another public comment period. MRP may submit a Class 1a permit modification after the permit has been issued to delete or modify this subsection.

KDHE agrees with MRP's comment on Permit Condition III.B.2.vi and deleted this subsection from the permit.

2. Section III.C. Post-Closure Procedures and Use of Property – the third paragraph contains a typographical error, attapulges should be spelled attapulgus. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE modified Permit Condition III.C. to correct this typographical error.

3. Section III.C.4.a. Post-Closure of the Land Treatment Unit – we propose deleting this item consistent with the proposed change to Section III.B.2. LTU Closure Plan. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

Changes to post-closure care of the Land Treatment Unit will be addressed at final closure of the Land Treatment Unit. MRP may submit a Class 1a permit modification at that time to delete or modify this subsection.

4. Section III.C.4.g. Post-Closure of the Land Treatment Unit – we propose deleting this item referring to biennial unsaturated zone monitoring. KDHE approved a Class 1a Permit Modification on December 23, 2005 discontinuing the unsaturated zone monitoring until final closure. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

Changes to post-closure care of the Land Treatment Unit will be addressed at final closure of the Land Treatment Unit. MRP may submit a Class 1a permit modification at that time to delete or modify this subsection.

5. Section IV.A. Background and Description of Area – the second paragraph of this section describes the contents of the #1 and #2 surface impoundments while they were in operation. The previous permit describes the contents as including a sludge that is equivalent to API separator sludge because the sludge was formed in the impoundments and not in the API separator.

The draft permit describes Slop Oil Emulsion Solids that sank to the bottom of the impoundments as "classified as" API Separator Sludge. Slop oil emulsion solids have their own K listing, K049 and are not API separator sludge (K051).

MRP believes the sludge contained in the operating #1 and #2 impoundments was the same as API Separator Sludge and the text should be revised accordingly as provided in the existing (2001) hazardous waste permit. This is also consistent with the text in the Approved Part B Permit Application Section 3.3.1.1.

We propose the following revision to the second sentence in the second paragraph of Section IV.A.: Grit, sediment, and slop oil emulsion solids, and heavy oil emulsions which sank to the bottom; of the impoundments was equivalent to classified as API Separator Sludge, were periodically dredged and placed in the Land Treatment Unit. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

The second sentence in the second paragraph of Permit Condition IV.A. was modified to read, "Grit, sediment, and heavy emulsions that sank to the bottom of the impoundments, similar to API Separator Sludge, was periodically dredged and placed in the Land Treatment Unit." This modification more accurately describes hazardous wastes that were generated in the #1 and #2 Surface Impoundments.

6. Section IV.B.5. Point of Compliance – first sentence, we propose changing "...is defined as the east boundary of the Waste Management Area..." to "..is defined as the <u>northeast</u> boundary of the Waste Management Area..." The Waste Management Area is oriented in a northeast direction; the downgradient boundary of the WMA faces toward the northeast. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

Permit Condition IV.B.5. modified the orientation of the downgradient boundary of the Waste Management Area from east to northeast. This change was made to more accurately reflect the proper orientation of the Waste Management Area.

7. Section IV.C.2.c. – this paragraph is missing text in the third sentence: "..This demonstration shall be done quarterly, in accordance with procedures contained in the, Appendix P, and the Engineering Feasibility Plan.." insert "Sampling and Analysis Plan" after "contained in the". (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

Permit Condition IV.C.2.c. was modified to add missing text.

8. Section IV.C.3.b. – we propose adding the following sentence to the end of this paragraph; <u>System operating parameters will be adjusted to reflect site conditions.</u> (MRP Properties Company, LLC – September 5, 2012)

KDHE's position is that any adjustments to system operating parameters not detailed in the Engineering and Feasibility Plan should be addressed with a permit modification. No changes were made to the permit in response to this comment.

9. Section IV.C.5.a – this paragraph contains a typographical error, the text "..or soil vapor extraction/air sparge." should be deleted. This text is a remnant from the previous permit. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE modified Permit Condition IV.C.5.a. to delete the wording "or soil vapor extraction/air sparge." from the text. This wording no longer applies to existing permit conditions.

10. Section IV.D.2.a. – we propose inserting text into the first paragraph as follows:

The groundwater corrective action monitoring system shall consist of a set of monitoring wells designed, installed, and operated to collect samples from the underlying aquifer in accordance with those portions of 40 CFR 264.97 applicable to groundwater monitoring programs conducted in accordance with 40 CFR 264.100 and that meet the following objectives: (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE does not agree to the inclusion of the suggested language to Permit Condition IV.D.2.a.. No changes were made to the permit in response to this comment.

11. Section IV.D.2.a.iii. - The groundwater conditions within the WMA have been rigorously monitored for over 20 years and the groundwater conditions are understood well. The authority in the Permit Part II includes on-site corrective action and off-site corrective action when necessary to protect human health and the environment. MRP will be implementing a site-wide groundwater monitoring program under the Permit Part II. This site-wide groundwater monitoring program will be designed to assess the extent of dissolved phase petroleum hydrocarbon impacts to the groundwater both vertically and horizontally. This Permit Part II monitoring program will satisfy the draft permit language in sub-item iii and we therefore propose deleting this item. "Is adequate to detect the rate of migration and three dimensional extent of all groundwater contaminant plumes on and off site" (MRP Properties Company, LLC – September 5, 2012) Section IV.D.2.a. - add a new sub-item in the objectives list - Is adequate to monitor the progress of the corrective action within the Waste Management Area

KDHE Response:

Permit Condition IV.D.2.a.iii. is standard language in KDHE permits and will not be removed, however, KDHE modified the statement to read "Is adequate to detect the rate

of migration and three-dimensional extent of all groundwater contaminant plumes on and off-site of the Waste Management Area".

KDHE added a new Permit Condition IV.D.2.a.v. that reads, "Is adequate to monitor the progress of the corrective action within the Waste Management Area."

12. Section IV.D.2.b. & i. & ii. – MRP proposes deleting this paragraph and sub-items i. and ii. The groundwater sampling and analysis program for the Permit Part I has been approved by KDHE. The annual groundwater corrective action report (Section IV.E.) provides an evaluation of the adequacy of the groundwater monitoring program and will recommend enhancements to the program if warranted. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

Permit Condition IV.D.2.b. and subsections i. and ii. contain standard permit language used by KDHE and is the same language used in 40 CFR 264.100(h). No changes were made to the permit in response to this comment.

13. Section IV. Table 5 Corrective Action Monitoring, Sampling, Analysis, and Parameter Measurements Schedule – we propose adding a footnote to Appendix IX in the Parameters and the Table's footnote list. The footnote should read "Sample and analyze groundwater from three corrective action performance monitoring wells, see IV.D.5.g" – The other parameters in Table 5 are associated with all of the corrective action performance monitoring wells. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE reviewed Table 5 of Permit Condition IV.D.5. and agrees that additional clarification is needed to define the monitoring wells that will be sampled during different sampling events. An additional column labeled "Monitoring Wells" was added to Table 5 to more accurately define the monitoring wells to be sampled during each specified event. KDHE also revised the footnotes by including an additional footnote which read "(*) Sample and analyze groundwater from three corrective action performance wells, see IV.D.5.g.".

14. Section IV.D.5.g.i. – This paragraph requires MRP to report to KDHE additional hazardous constituents identified in the Appendix IX sampling within seven days from the completion of the <u>analyses</u>. The laboratory may take up to two weeks after some analytical fractions have been completed (but not reported) to complete the full Appendix IX suite of analyses before they issue their report. We propose changing the 7 day reporting requirement to 21 days in the case of reporting additional hazardous constituents present in the Appendix IX analyses that are not included in Permit Part I Attachment B, recognizing the report will present raw unvalidated laboratory data. MRP will verify the identification of additional hazardous constituents reported to KDHE

following the completion of the laboratory data validation. Typically, the analytical data validation can be completed within a three week period unless the laboratory is required to resubmit analytical data or reprocess raw data, on these occasions, more time may be necessary to complete the data validation.

This paragraph also requires the results of the Appendix IX analyses to be submitted within 40 days of the sample collection date. For the reasons described above, we request this be changed to within 60 days due to the complexity of the analyses. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE does not agree to modify the 7 day reporting limit to 21 days. KDHE interprets "completion of analyses" to include laboratory analysis of data, validation of raw laboratory data, possible retesting, and final validation/quality control.

KDHE modified Permit Conditions IV.D.5.g.i. and IV.D.5.g.ii. to change the 40 day submission time limit to 60 days. The last sentence in Permit Condition IV.D.5.g.i. was modified to read "The results of the analyses must be submitted to the Secretary within sixty (60 days of the sample collection date." The second sentence in Permit Condition IV.D.5.g.ii. was modified to read "The results of the resample analyses must be submitted to the Secretary within sixty (60) days of the sample collection date."

15. Section IV.E.1.b.iv. – we propose deleting the word "any" before hazardous constituents; this is consistent with the existing (2001) Permit Part I. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE reviewed the requested change and finds no material benefit to modifying Permit Condition IV.E.1.b.iv. to remove the word "any". No changes were made to the permit in response to this comment.

16. Section IV.E.1.b.vi. – we propose inserting after "A summary" "and conclusions regarding the comparison", and deleting "and an evaluation" after the insertion. The proposed language is consistent with the existing (2001) Permit Part I. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE modified Permit Condition IV.E.1.b.vi. to read "A summary and conclusions regarding the comparison of analytical results from groundwater extraction and discharge monitoring, regulated under the Permittee's NPDES Permit, to compare detected levels of hazardous constituents to the maximum concentration limits allowed for discharge to the Walnut River, regulated by the NPDES Permit." This terminology more accurately reflects the process for interpreting this data.

17. Section IV.E.1.b.viii. – we propose replacing this paragraph with the following language consistent with the existing (2001) Permit Part I:

The Permittee shall include contaminant trend analyses from year to year from the analytical results to help evaluate the effectiveness of the corrective action in removing subsurface contaminants, to track the overall progress/trends in cleaning up the groundwater, and to provide the basis for future decisions regarding operation of and/or ultimately, cessation of pumping.

This language provides focus on the monitoring data from the previous year and comparison with the historic trends from year to year. If there is an increasing trend, this trend will be discussed in the report. However, an increasing trend may not be due to a release from one of the regulated units but likely associated with LNAPL from past refinery operations. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

Permit Condition IV.E.1.b.viii. contains standard language used by KDHE. No change to the permit was made in response to this comment.

18. Section IV.E.1.c. – we propose language to identify the Annual Reports in this section specifically as Annual Groundwater Corrective Action Reports. We also propose to change the language at the end of this paragraph by deleting the text after "and other information as" to the end of the sentence and inserting at the end of the sentence "appropriate" (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE replaced all text referring to Groundwater Corrective Action Reports in Section IV.E. with the wording "Groundwater Monitoring Report". This modification was necessary to maintain consistency between historical and future groundwater monitoring reports. In addition, KDHE modified Permit Condition IV.E.1.c. to replace the wording "specified in the Engineering and Feasibility Plan, Section 15.4 of the approved Part B Permit Application" with the word "appropriate".

19. Section IV.E.1.d – we propose revising this paragraph so it reads as follows:

The Annual Groundwater Corrective Action Reports shall evaluate the effectiveness of the groundwater corrective action program and to provide the basis for future decisions regarding cessation of groundwater corrective action activities. (MRP Properties Company, LLC – September 5, 2012)

The proposed revision to Permit Condition IV.E.1.d. does not result in any material change to the existing language. No change to the permit was made in response to this comment.

20. Section IV.E.2.b.i. – regarding the Semi-Annual Monitoring Reports, we propose replacing "description" with "summary", this is consistent with the current language and will identify the monitoring events and data collected during the reporting period. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE modified Permit Condition IV.E.2.b.i. to read "A summary of the monitoring activities and operation and maintenance performed including recommendations, if necessary, for the groundwater monitoring system,".

21. Section V.C.1.d. – we propose adding text to provide clarification. Insert "<u>at locations specified in the Groundwater Monitoring Plan, Section 15 of the Part B Permit Application</u>" after "shall be maintained" (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE modified the first sentence in Permit Condition V.C.1.d. to read "All groundwater monitoring wells at the facility shall be maintained at locations specified in the Groundwater Monitoring Plan, Section 15 of the Part B Permit Application." KDHE agrees that this statement provides clarification as to which wells are referenced by this permit condition.

22. Section V.C.2. Groundwater Monitoring System Objectives

Section V.C.2a. – we propose revising this list of objectives to be consistent with Section IV.D.2 as applicable to the compliance monitoring program, as follows:

Revise:

<u>i.</u> <u>The number, location, and depth of the monitoring wells are</u> <u>Is</u> adequate to support collection of representative groundwater samples for comparison to the GWPS;

Delete

- <u>ii.</u> Is adequate to detect significant evidence of increased/decreased contamination of groundwater at the point of compliance, and downgradient of the facility including groundwater that discharges into the Walnut River;
- <u>iii.</u> Is adequate to detect the rate of migration and three dimensional extent of all groundwater contaminant plumes at and beyond the point of compliance (including beyond the facility property boundary, if necessary).

Insert

- <u>ii.</u> Is adequate to determine whether there is statistically significant evidence of increased contamination for any parameter or hazardous constituent specified in Permit Condition V.B.
- <u>iii.</u> Detection and/or delineation of the horizontal and vertical extent of groundwater contamination at and beyond the point of compliance (including beyond the facility property boundary, if necessary);
- <u>iv.</u> Determination of representative concentrations of hazardous constituents and/or contaminant plume indicator parameters in the groundwater. (MRP Properties Company, LLC September 5, 2012)

KDHE Response:

KDHE does not agree to the suggested revisions to the existing language in Section V.C.2.a. No changes were made to the permit in response to this comment.

23. Section V.C.5.f. – We propose changing this paragraph by replacing "effective date of this permit" with "start of the Compliance Monitoring" referring to the testing of the Compliance Monitoring Wells for Appendix IX constituents every 5 years after the start of the Compliance Monitoring period. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE modified Permit Condition V.C.5.f. to replace the text "effective date of this permit" with "start of the Compliance Monitoring". KDHE agrees that the start of the compliance period more accurately reflects the start of the 5 year time period.

24. Section V.C.5.f.i. – we propose the same changes to this sub-item to be consistent with the proposed revision in Section IV.D.5.g.i. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE does not agree to modify the 7 day reporting limit to 21 days. KDHE interprets "completion of analyses" to include laboratory analysis of data, validation of raw laboratory data, possible retesting, and final validation/quality control.

KDHE modified Permit Conditions V.C.5.f.i. and V.C.5.f.ii. to change the 40 day submission time limit to 60 days. The last sentence in Permit Condition V.C.5.f.i. will be modified to read "The results of the analyses must be submitted to the Secretary within sixty (60 days of the sample collection date." The second sentence in Permit Condition V.C.5.f.ii. was modified to read "The results of the resample analyses must be submitted to the Secretary within sixty (60) days of the sample collection date."

25. Section V.D.1.c. – we propose the same modification suggested in Section IV.E.1.c. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE modified Permit Condition V.D.1.c. to replace the wording "specified in the Engineering and Feasibility Plan, Section 15.4 of the approved Part B Permit Application" with the word "appropriate".

26. Section V.E.2. Demonstration of Other Sources – the paragraph numbering in this Section is incorrect. The third paragraph in this section refers to Permit Condition V.E.3.c. This is a typographical error, there is no Section V.E.3.c. Should the reference to Section V.E.3.c. be changed to Section V consistent with the existing (2001) Permit Part I? (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

The numbering of subsections a, b, and c under Section V.E.2. are in error. KDHE modified the numbering of these subsections to correct this error.

27. Section V.E.3. Corrective Action – we propose the following changes to this paragraph to improve clarity and provide 120 days to restart the Groundwater Corrective Action program rather than specify "immediately":

If the Permittee demonstrates in Permit Section V.E.3.b an exceedance is confirmed due to a release from a regulated unit, the Permittee shall immediately re-initiate the Groundwater Corrective Action Program for the Waste Management Area as specified in Permit Section IV within 120 days. The Permittee shall notify the Secretary within thirty (30) days of the initiation of all groundwater corrective action activities. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE does not agree to the suggested revisions to the existing language in Section V.E.3.a.. Permit Condition V.E.2.a. already allows a 90 days period to evaluate the exceedance and restart corrective action if required. The additional proposed modifications are already addressed in Section V.E.. No changes were made to the permit in response to this comment.

- 28. Attachment B: Groundwater Protection Standard (GWPS) Analytes
 - i. There are a couple of typographical errors on this table: the o and u are reversed on benzo(b)fluoranthene, benzo(k)fluoranthene, fluoranthene, and fluorene, and acenapthene should be spelled acenaphthene.

KDHE modified Attachment B to correct the typographical errors in the names of the GWPS analytes.

ii. Attachment B in the 2001 permit listed Cresols (methylphenols) and benzo(b)fluoranthene. The draft 2012 permit Attachment B lists the individual methylphenol isomers: 2-methylphenol (ortho-cresol), 3-methylphenol (metacresol), and 4-methylphenol (para-cresol). The draft permit Attachment B also contains benzo(b)fluoranthene and benzo(k)fluoranthene. The concern with these constituents is the laboratory's ability to reliably distinguish between the isomers that have identical mass spectra and retention times resulting in coelution of 3-methylphenol and 4-methylphenol and the benzo(b)fluoranthene and benzo(k)fluoranthene. We propose combining the "3-methylphenol and 4-methylphenol" as a single result and using the lower GWPS of 478 µg/L and combining the "benzo(b)fluoranthene and benzo(k)fluoranthene" using the lower of the two RSKs; 0.537 µg/L for the GWPS.

KDHE Response:

KDHE agrees with MRP's concern that there may be errors in determining the actual concentrations of benzo(b)fluoranthene, benzo(k)fluoranthene, 3-methylphenol, and 4-methylphenol due to the inability of the laboratory to differentiate between constituents with similar mass spectra signatures. KDHE modified Attachment B to combine constituents benzo(b)fluoranthene with benzo(k)fluoranthene and 3-methylphenol with 4-methylphenol. The GWPS of the new combined constituents was modified to the most conservative value of each paired constituents.

iii. Dibenzofuran was added to the Groundwater Protection Standards (GWPS) list in the draft Permit Part I. Dibenzofuran is a 40 CFR Part 264, Appendix IX list constituent. Dibenzofuran is not a Skinner List constituent and is not associated with petroleum refining. Results of the Appendix IX testing (see Table 1) conducted in 2004 and 2009 indicate Dibenzofuran should not be a constituent of concern. MRP proposes removing Dibenzofuran from the GWPS list in Attachment B.

Table 1 – Summary of Dibenzofuran Analyses – Appendix IX Sampling

Well ID	Sample Date	Analyte	Result		Units
MW-12	13-Oct-04	Dibenzofuran	10	U	ug/L
WN-1A	14-Oct-04	Dibenzofuran	10	U	ug/L
WN-1B	14-Oct-04	Dibenzofuran	10	U	ug/L
RCRA-4	14-Oct-04	Dibenzofuran	10	U	ug/L
WN-1A	26-Oct-09	Dibenzofuran	10	U	ug/L
WN-7B	26-Oct-09	Dibenzofuran	0.83	J	ug/L
MW-6	28-Oct-09	Dibenzofuran	7.2	J	ug/L
U = not detected, J = estimated concentration					

Dibenzofuran was detected in the October 2009 sampling event. Although Dibenzofuran is not a common constituent associated with petroleum refining it can be a byproduct of the process and has been detected at petroleum refineries. MRP may request a permit modification to remove Dibenzofuran from the GWPS list if it is not detected in future Appendix IX sampling events. No changes were made to the permit in response to this comment.

iv. Footnote "c" identifies several constituents that do not have a MCL or a KDHE RSK value. The GWPS for the "c" footnoted constituents is the practical quantitation limit (PQL) listed in 40 CFR 264, Appendix IX. The footnote in 40 CFR 264, Appendix IX indicates the PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.

We propose revising footnote "c" to the GWPS list in Attachment B to read: "40 CFR 264, Appendix IX PQL; The laboratory's minimum detection level (MDL) and reporting level (RL) values are subject to update based on quarterly validation studies. Data will be evaluated and reported against the current MDL and RL values."

KDHE Response:

KDHE does not agree with the proposed modification to footnote "c" of the GWPS list in Attachment B. KDHE's opinion is that the existing language in the footnote of 40 CFR 264, Appendix IX is adequate to address any issues with PQL's. No changes were made to the permit in response to this comment.

v. We propose inserting "**" in the GWPS Table following benzene, ethylbenzene, toluene, and total xylenes to reflect the footnote at the bottom of the GWPS Table. (MRP Properties Company, LLC – September 5, 2012)

KDHE Response:

KDHE modified Attachment B to insert "**" in the GWPS Table to reflect the footnote at the bottom of the GWPS Table.

In addition to the changes made to the permit addressing the above comments by MRP, KDHE has made the following modification:

Changes to Permit Condition I.A.:

KDHE has modified the fifth sentence in the first paragraph to read "Federal regulations are referenced in Kansas Administrative Regulations (K.A.R.) 28-31-4 through 28-31-279a." This sentence was revised to clarify to the reader the regulations that are referenced in this permit.